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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,129	12/31/2003	Ances Narsinh	134171	1739

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EXAMINER

SHIN, KYUNG H

ART UNIT	PAPER NUMBER
2143	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/751,129

Applicant(s)

NARSINH, ANEES

Examiner

Kyung H. Shin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/15/05</u> | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This action is responding to application papers filed on **12-31-2003**.
2. Claims **1 - 14** are pending. Claims **1, 2** are independent.

Double Patenting

3. The **nonstatutory double patenting** rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130 (b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. **Claims 1 - 8** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting under the judicially created doctrine of double patenting over:

claims **1, 2, 5-9, 11, 17-21** of Application No. **10/750,922**,

claims **1, 2, 8 - 12** of Application No. **10/751,099** (PGPUB: 2005,014,1510),

claims **1, 2, 8 - 12, 14** of Application No. **10/750,702** (PGPUB: 2005,014,1510),

under the same title "**Parallel data link layer controllers in a network switching device**"

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This is a **provisional** double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending applications and would be covered by any patent granted on that copending application, since the referenced copending applications and the instant application are claiming common subject matter, as follows:

Application			
	2005,019,8258	2005,014,1510	2005,014,1510
10750922	10751129	10751099	10750702
21 claims	14 claims	12 claims	14 claims
Indp - 1a	Indp - 1a	Indp - 1a	Indp - 1a
Indp - 2abc e	Indp - 2abc e	Indp - 2aebc	Indp - 2abc e
3			
4			
5	3	8	8
6	5	9	9
7	4		10
8	6	10	11
9	7	11	12
10			
11	8	12	14
Indp - 12			
Indp - 13			
14			
15			
16		8	8
17	5	9	9
18	4		10
19	6	10	11
20	7	11	12
21	8	12	14

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5. **Claims 1 and 2** of the instant application (**10/751,129**) is rejected on the ground of **nonstatutory provisional obviousness-type double patenting** as being unpatentable over **claims 1 and 2** of other Applications. Although the conflicting claims are not identical, they are not patentably distinct from each other, because the claims of the '922 application "anticipate" the broader instant application claim. Accordingly, the application claims are not patentably distinct from the '922 application claims. Since it is clear that the more specific (i.e., VLAN module, VLAN tag state alteration) of '922 application claim encompass the instant application claim, following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate **terminal disclaimer**.

The remaining claims of other applications follow similar reasoning.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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7. Claim 1 - 14 are rejected under 35 U.S.C. 102(e) as being anticipated by **Crinion et al.** (US Patent No. 6,181,699).

Regarding Claim 1, Crinion discloses a data link layer processor comprising:

- a) one or more media access controllers (MACs) for receiving a frame from a communication network; (see Crinion Figure 8; col. 5, lines 66-67; col. 6, line 66 - col. 7, line 3; col. 8, lines 17-19; col. 8, lines 34-37: MAC (Ethernet) access for data frames, input and output) and
- b) a statistics acquisition module, operatively coupled to the one or more MACs, for compiling statistics associated with each of the plurality of MACs. (see Crinion col. 5, lines 53-56; col. 6, lines 52-54; col. 7, lines 53-56: statistics data processing, set of counters)

Regarding Claim 2, Crinion discloses a switching device comprising:

- a) one or more physical layer interfaces for receiving one or more frames from a communication network; (see Crinion Figure 8; col. 8, lines 26-28; col. 5, lines 66-67; col. 6, line 66 - col. 7, line 3; col. 8, lines 17-19; col. 8, lines 34-37: MAC (Ethernet) access for data frames, input/output)
- b) a plurality of data link layer processors (see Crinion Figure 8; col. 5, lines 26-28; col. 8, lines 17-19: data link layer (MAC) processor(s), 802.3 LAN users), wherein each data link layer processor comprises:

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- c) one or more MACs, wherein each MAC is operatively coupled to a physical layer interface; (see Crinion Figure 8; col. 8, lines 26-28; col. 5, lines 66-67; col. 6, line 66 - col. 7, line 3; col. 8, lines 17-19; col. 8, lines 34-37: MAC (Ethernet, 802.3 LAN users) access for data frame) and
- d) a statistics acquisition module, operatively coupled to the one or more MACs, for compiling statistics on each of the plurality of MACs; (see Crinion col. 5, lines 53-56; col. 6, lines 52-54; col. 7, lines 53-56: statistics data processing) and
- e) a network processor, operatively coupled to the plurality of data link layer processors, for routing the one or more frames received from the plurality of data link layer processors. (see Crinion Figure 8; col. 2, lines 46-54: process (processor) network traffic; col. 1, lines 7-10; col. 5, lines 17-19: routing data frames)

Regarding Claim 3, Crinion discloses the switching device of claim 2, wherein each of the data link layer processors further comprises one or more flow search engines for classifying the one or more frames based upon one or more properties associated with the frames. (see Crinion col. 1, lines 47-49; col. 3, lines 26-27: set priority for data frame, property, attribute of data frame)

Regarding Claim 4, Crinion discloses the switching device of claim 3, wherein one or more properties comprise a source port, a VLAN tag state, a VLAN identifier, and a VLAN tag control information (TCI) field. (see Crinion col. 3, lines 62-64: VLAN (TCI)

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information; col. 1, lines 50-52; col. 2, lines 1-3: VLAN tag control information)

Regarding Claim 5, Crinion discloses the switching device of claim 3, wherein the one or more flow search engines comprise one or more content addressable memories (CAMs). (see Crinion col. 1, lines 52-54; col. 2, lines 55-57; col. 3, lines 3-4: CAM utilized in data frame processing)

Regarding Claim 6, Crinion discloses the switching device of claim 5, wherein the one or more CAMs associated with each of the plurality of data link layer processors consists of QoS rules pertaining to the associated plurality of physical layer interfaces. (see Crinion col. 1, lines 47-49; col. 3, lines 26-27: set priority, determination of quality of service (QoS) for data frame(s))

Regarding Claim 7, Crinion discloses the switching device of claim 2, wherein data link layer processors are media access controller (MAC) processors. (see Crinion col. 8, lines 26-28; col. 5, lines 66-67; col. 6, line 66 - col. 7, line 3; col. 8, lines 17-19; col. 8, lines 34-37: MAC (Ethernet, 802.3 LAN users) access for data frames)

Regarding Claim 8, Crinion discloses the switching device of claim 2, wherein the switching device is selected from the group consisting of: a router, a multi-layer switching device, and a switch blade. (see Crinion col. 2, lines 50-51; col. 4, lines 45-48: switch (switching device))

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Regarding Claim 9, Crinion discloses the switching device of claim 2, wherein the statistics compiled by the statistics acquisition module comprise ingress frame statistics. (see Crinion col. 5, lines 53-56; col. 6, lines 52-54; col. 7, lines 53-56: statistics for data frame processing, maintain set of counters, data frames (input) processing)

Regarding Claim 10, Crinion discloses the switching device of claim 9, wherein the ingress frame statistics are compiled as a function of VLAN entry. (see Crinion col. 2, lines 55-57; col. 9, line 66 - col. 10, line 2: VLAN data frame processing; col. 5, lines 53-56; col. 6, lines 52-54; col. 7, lines 53-56: statistics for data frame processing, maintain set of counters, input data frames)

Regarding Claim 11, Crinion discloses the switching device of claim 10, wherein the ingress frame statistics compiled as a function of VLAN entry comprise: the number of bytes enqueued at the data link layer processor; the number of frames enqueued at the data link layer processor; the number of non-unicast bytes enqueued at the data link layer processor; and the number of non-unicast frames enqueued at the data link layer processor. (see Crinion col. 5, lines 53-56; col. 6, lines 52-54; col. 7, lines 53-56: statistics for data frame processing, maintain set of counters, based on input/output data frames (unicast, multicast) processing)

Regarding Claim 12, Crinion discloses the switching device of claim 2, wherein the

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statistics compiled by the statistics acquisition module comprise egress frame statistics. (see Crinion col. 5, lines 53-56; col. 6, lines 52-54; col. 7, lines 53-56: statistics for data frame processing, maintain set of counters, output data frames)

Regarding Claim 13, Crinion discloses the switching device of claim 12, wherein egress frame statistics are compiled as a function of physical layer interface. (see Crinion Figure 8; col. 5, lines 53-56; col. 6, lines 52-54; col. 7, lines 53-56: statistics for data frame processing, maintain set of counters, based on data frame (output) processing)

Regarding Claim 14, Crinion discloses the switching device of claim 13, wherein egress frame statistics are further compiled as a function of VLAN entry. (see Crinion col. 2, lines 55-57; col. 9, line 66 - col. 10, line 2: VLAN data frame processing; col. 5, lines 53-56; col. 6, lines 52-54; col. 7, lines 53-56: statistics for data frame processing, maintain set of counters, data frame (output) processing)

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9:30 am - 6 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kyung Hye Shin
Patent Examiner
Art Unit 2143



KHS
June 25, 2007